WAR FOOD ADMINISTRATION
Office of Distribution
Washington 25, D. C.

Report of National Food Preservation Workshop Training Conference
Peoria-Pekin, Ill., January 17-28, 1944

Background: The widespread development of community canneries in 1943 was very gratifying since it indicated that people in all parts of the country were making an effort to prevent waste of garden produce and to insure adequate stores of food for family needs. Coupled with the gratification over the prevention of waste, however, was concern over the lack of trained supervision for many of the canneries. Obviously, a housewife's pride in her store of canned foods is short-lived if spoilage develops -- and that is likely to happen if the person supervising the cannery is not familiar with approved canning techniques and does not know how to operate the equipment properly.

The Civilian Food Requirements Branch of the Office of Distribution, WFA, felt that the most effective way to provide much needed training was through workshops conducted jointly by the various agencies, universities, colleges, and other groups interested in community canning activities. The first such workshop was held at Athens, Ga., May 18-21, 1943; it was followed by one at the Farragut Community Food Preservation Center near Knoxville, Tenn., June 1-3; at Moscow, Idaho, June 21-25, and at Denton, Tex., July 26-28. These workshops proved to be such effective means of providing training that it was felt most desirable to hold a national conference to point the way for regional and State training programs, thus insuring maximum diffusion of authoritative information on operating centers to provide safe, standard products for civilian use. Accordingly, the Civilian Food Requirements Branch of the Office of Distribution, in cooperation with the U. S. Office of Education and the Extension Service, sponsored such a conference at Peoria and Pekin, Ill. from January 17 through January 28, 1944. The number participating in the conference was limited to approximately 50 persons since experience in conducting previous workshops had proved that a larger number is not desirable for effective training owing to limitations of time and facilities. Training at the National Workshop was limited to canning although some of the previous workshops had included training in dehydrating and freezing as well.

Attendance: Agencies and groups invited to cooperate, in addition to the sponsoring agencies, included the War Relocation Authority, the Bureau of Indian Affairs, the Veterans Administration, the Bureau of Prisons, the Bureau of Human Nutrition and Home Economics, the Rural Electrification Administration, the Farm Security Administration, the Tennessee Valley Authority, the Office of Materials and Facilities of WFA, the General Industrial Equipment Division of WPB, a college from each Office of Distribution region, utility companies, and manufacturers of canning equipment. Each agency selected State leaders to attend on a basis to assure fair representation from each section of the country. (List of personnel attached.)

Location: Illinois was chosen as a central location and as a representative area where important developments in community canning activities had taken place in the past year. The decision to conduct the workshop at Pekin was made not only because the canning unit there illustrates the proper arrangement of equipment for maximum production but also because of the availability of the services of Mr. Cecil Bilbrey, State Supervisor of Community Canning for the Illinois Extension Service and Mrs. Mary C. Corbett, Unit Supervisor of the Pekin Plant, who had collaborated with the Office of Distribution and the Office of Education in the preparation of the publication on community food preservation centers. A preliminary draft of this manuscript was reviewed at the conference. Th unit is steam-operated and has a production capacity of approximately 10,000 cans per 8-hour day. The major items of equipment are:

1	20 H.P. upright boiler
9	106 No. 3 can capacity retorts
3	106 No. 3 can capacity water-bath canners
1	large cooling tank (4-basket size)
1	hoist and track for lifting retort baskets
1	18' continuous type exhaust box
1	automatic can-closing machine
1	motor-driven sealer
2	steam-jacketed kettles
2	medium tanks
1	can-washing tank
2	blanch tanks
2	cold-dip tanks (near blanch tanks)
1	scalding tank
1	cold-dip tank (near scalding tank)
	wash tanks (rotary tank to be built)
	preparation tables
	fill table (built into exhaust box)

A small gas-fired pressure cooker unit was set up adjacent to the steam cannery to illustrate the type of equipment and the arrangement satisfactory for small-scale operation. Public school classrooms were used for demonstrating sealers and other small equipment and for holding Job Instruction Training courses. Owing to limited hotel facilities in Pekin persons who attended the conference stayed in Peoria, 10 miles by bus from Pekin, where general meetings and round-table discussions were held

Training Objectives: In outlining the training to be given at the National Food Preservation Workshop Conference the following major objectives were kept in mind:

1. To develop a better understanding of the scope of planning and the organization necessary for an effective community food preservation program.

2. To develop a more complete understanding of the needs and specifications of canning equipment and supplies used in community food preservation centers.

3. To develop a better understanding of the principles involved in equipment arrangement for best flow of work and efficient operation.

4. To point up some of the important factors to consider when selecting site and building for community food preservation centers.

5. To improve the understanding of and the ability to operate and care for all pieces of equipment used in community canning centers.

6. To point up the best canning techniques to use in community centers to obtain a standard product and to keep spoilage at a minimum.

7. To develop a better understanding and appreciation of the need for good management in community food preservation centers (records and reports, making appointments, scheduling, work simplification, and other means by which maximum production can be realized in any one center.)

8. To develop an appreciation of the training requirements for patrons and workers and th techniques to be used in making such training effective.

9. To provide an opportunity to discuss the causes for spoilage.

10. To point up the need for State-wide planning of food preservation programs to avoid duplication of effort and to assure the maximum coverage within a State.

Conference Plan: To provide an opportunity for each member actually to participate in all phases of training, the conference personnel was divided into four groups of approximately 12 persons to a group. One- and three-quarter-hour sessions on four phases of training were arranged for each day. The group rotated from one session to another until the sessions had been completed. A 15-minute recess was provided between each session to allow time for making the shift.

The first week of the conference was devoted to application of Job Instruction Training as it applied to operating equipment in community canning centers. In addition to Job Instruction Training members of the conference were given an opportunity to operate all types of equipment and to discuss its specifications, placement, installation, operation, adjustment, repair, and care.

The second week was devoted to round-table discussions on organizing community food preservation programs, planning food needs, production and harvesting practices, safe methods of processing, types and causes of spoilage, and management problems in the cannery. Each conference member

had an opportunity to bone, cut, and can beef and to prepare and can acid and non-acid vegetables, namely: tomatoes, string beans, and carrots. Each group operated the equipment used in canning these products. Following the canning session a period was devoted to grading canned products.

Time spent in operating equipment and on instruction and other steps in training was divided approximately as follows:

Steam boilers	8 hours
Retorts, water bath, and cooling tanks	8 hours
Sealers	8 hours
Pressure cookers and equipment for small units	2 hours
Exhaust boxes	2 hours
Special equipment such as meat grinders, knives, larf presses, etc.	2 hours
Other equipment such as steam-jacketed kettles, blanch, scald, cold dip and wash tanks	2 hours
Determining equipment needs and arrangement (floor plans)	2 hours
Installation of steam system	2 hours
Job Instruction Training	10 hours
Job Method Training	2 hours
Round-table discussion on organization of various community canneries	2 hours
Round-table discussion on food for canning	2 hours
Round-table discussion on cannery management problems	2 hours
Forum discussion - canning techniques, acid and non-acid products	2 hours
General discussion on spoilage problems	2 hours
Cutting, boning, and canning of meat	6 hours
Canning of acid and non-acid vegetables (tomatoes, string beans, and carrots)	6 hours
Grading canned products	2 hours

Job Instruction Training: At the outset the groups taking the Job Instruction Training Course considered the situation of an expanding organization and the necessity for training in such an organization. They also considered the part played by supervisors in getting an organization's work done through other people. Some discussion was devoted to the

knowledge and skills required of a supervisor in discharging his responsibilities. Three skills were singled out for special consideration: the skill of determining the best methods of doing the work; the skill of maintaining the best relationships between workers in the organization so as to obtain the best productive results from them; and the skill of training employees to do a job effectively. The "training within industry" program for developing these skills in supervisors was described briefly. This consists of formal courses in Job Methods Training, Job Relations Training, and Job Instruction Training. The scope of each of these courses was briefly indicated. The remainder of the program was restricted to Job Instruction Training - commonly called J.I.T.

The groups' attention was then directed to three methods of instruction: "telling alone," "showing alone," and the recommended method which combines these two in a certain way. The effectiveness of these methods was tried out on a simple job, the tieing of the fire underwriter's knot. First the job was taught by "telling alone" to one of the group members, and the method was found inadequate since he had not learned. Next, the job was "shown" to another member and he likewise failed to learn; so this method was found inadequate. Then one of the members of the group was selected as a learner and was taught by the four-step method:

1. Preparing the learner for instruction.

2. Telling and showing him in a particular way.

3. Having him perform the job, ther repeat it; explaining to him what he was doing; and finally having him explain the key points of the job.

4. Following up the learner's performance when he is on the job.

The four-step method was analyzed in detail and the group was presented an outline of this method of instruction.

Each member of the group gained experience in the use of the four-step method during the remaining sessions. Each one taught a simple job to a learner who was selected from the group. All of these demonstrations were examined carefully and discussed by the group so as to perfect the skills of the individuals in using this method.

A simple method of preparing a breakdown or outline of a job was presented. Each participant made a breakdown of the job which he demonstrated and these jobs were also broken down by the instructor on the blackboard with group discussion. The usefulness of the job breakdown in instruction was established.

Two types of training time tables were explained as simple devices to facilitate the training of any organization of workers. A number of special instructional problems were discussed with the group. The group also discussed at some length the usefulness of this training program to the supervisory staffs of community food preservation units, and

the advantage to planners and organizers of the food preservation project (such as the Work Shop group) in knowing this method of instruction.

Job Methods Training: A portion of the food preservation conference dealt with the equipping of a plant and the arrangement of this equipment into an operating relationship within the available work space. The central theme of that discussion was efficiency in the operations of the plant achieved through the best use of the available facilities. A brief introduction to the Job Methods Training course was given so that the group would be thinking in terms of work efficiency as they considered questions of plant lay-out.

In the Job Methods Training session it was emphasized that the effectiveness of a supervisor is in a considerable measure determined by the efficiency of the methods which he devises for use of his workers in doing the job. It was further pointed out that greatest efficiency will be accomplished only when the plans or adopted procedures of a plant have been scrutinized in great detail.

In order to focus consideration on an effective method of job analysis the instructor presented a demonstration of two methods of doing the simple job of assembling shields for use in the manufacture of radios. First the method was done by the instructor almost exactly as it had been performed in a factory. The inefficiency of the work methods used there were obvious to everyone; then the job was done by a revised method which greatly reduced the time and cost of operation. The group was shown the detailed type of job analysis which made possible the planning of the new method and was shown a breakdown of the process of evaluation and revision of any work method. This process, like the Job Instruction Training method, consisted of four steps, each performed in certain ways.

The Job Methods Training session appeared to have oriented the thinking of the persons attending the conference, and of preparing them for a more constructive session on plant layout.

Training's Place in Regional and State Conferences: Some persons attending the Peoria-Pekin conference felt that provision should be made in their regional and state conferences for formal consideration of training. The training specialists at the National Conference feel that the two programs, Job Instruction Training and Job Methods Training, should be understood by persons who are responsible for the development of the community food preservation program. They should have this knowledge so they can better decide whether the supervisory staff of the center needs to have this training. They should also understand the difficulties of making this training available.

Job Instruction Training and Job Methods Training have been widely taught in some industrial communities. These programs have not been extensively dispersed through Government channels. In some states these programs have been presented to the Vocational Education staffs or to the State Extension staffs; in other States this is not the case. The difficulty at once arises of finding persons locally who are trained to teach these

courses. It may prove impossible in some localities to have sessions on Job Instruction Training and Job Methods Training.

The regional staffs of the Office of Distribution in some parts of the country may be in a position to give limited help. If those organizations which will conduct local food preservation workshops and carry out the local planning and organization of food preservation units could find it possible to introduce these programs to their staffs they doubtless would find many practical uses for the training in their other lines of work.

The training specialists who worked at the National Conference have developed a 4-hour program of Job Instruction Training which they feel is adequate for persons who are primarily organizers and planners. They feel that the full 10-hour course is preferable for persons doing detailed supervision of workers since each supervisor should have the experience of trying out the plan once under close guidance. Persons presenting either of these courses should have special training in the presentation of the courses. It is doubtful that a person who has participated in only the 10-hour course would have an adequate background for teaching the course to others.

Suggestions and recommendations made during the various training sessions of the conference included the following:

1. Organization of Community Centers:

   Community food preservation centers should be the outgrowth of a definite need in the community as determined by a survey.

   Centers established on a long-term basis need to be sponsored by local tax-supported groups such as county commissioners, county or city school boards, welfare departments, etc.

   Direction and control of the development of such centers should be kept in the hands of representative community members serving as an advisory committee.

   The type of center established should depend upon needs of the community. Large centers should be encouraged only where produce to be processed is abundant and the number of families to participate justifies their establishment.

   It is well to consider school lunch programs and welfare needs when planning community centers.

   When making floor plans and deciding on type of equipment, allowance should be made for possible expansion. The boilers for steam units should be of sufficient horsepower to take care of anticipated expansion.

State and local regulations on safety and sanitation should be conformed with when setting up a plant.

2. Operation and Management:

A full-time on-the-job supervisor is recommended for all community canneries.

An agreement between the patrons and cannery management defining responsibility of each and setting up policies of operation will eliminate misunderstandings that may occur otherwise.

It is advisable to set up some control on the number of quarts per family member that any one patron may process.

To make the maximum use of a plant it is advisable to maintain a system of making appointments and scheduling production. No patron should be kept waiting "for his turn." To schedule efficiently, at least 2 days advance notice should be allowed.

Partial preparation of produce at home should not be encouraged as produce prepared ahead of time is not of as high a quality as if prepared at the center and the possibility of loss through spoilage is greater.

Insofar as possible, a food preservation center should be self-supporting and operated on a nonprofit basis. Reports indicated that a charge of approximately 5 cents for No. 2 cans and 6 cents for No. 3 cans would take care of overhead expenses; however, this would vary with the cost of rent, fuel, and wages of employees.

Consideration should be given to making the facilities of canneries available to people who cannot afford to pay in cash for canning, by allowing them to pay either by working or by leaving a toll of products canned.

To prevent the waste of surplus commodities as they may occur, committees charged with the responsibility of State planning should have representation on agricultural committees or other means of obtaining information on the availability of such commodities.

3. Personnel:

Paid personnel needed in community centers will depend on the size of the plant and equipment used. In large steam centers a steam boiler operator, sealer operator, and retort operator may be essential. Where persons are taught to operate all equipment a supervisor may be the only paid person required.

4. Equipment:

It was recommended that manufacturers give careful consideration to

improving retorts used in community canneries by:

a. Providing retorts with gear gages of adequate size. A minimum 3" face and ¼" stem connection is recommended for gages used on the 33 No.-3 can capacity and 106 No.-3 capacity retorts used in community centers.

b. Providing thermometers on retorts. Their use is essential as a definite control and check on gage readings. A pressure gage in itself is a very poor substitute for a thermometer.

c. Providing 3/4" spring-loaded pressure-relief valves of approved design and sturdy construction.

d. Improving construction and design of retorts to comply with specifications set up by States having laws controlling the use of unfired pressure vessels.

e. Providing ½" vents in cover of retort controlled by means of a ½" gate valve or providing a 1" overflow pipe on the side at the top controlled by a 1" gate valve.

f. Providing all but 33 can-capacity retorts with tappings for pressure cooling installation. Right tapping should be 3/4", left tapping1", both tappings 2" from top on opposite sides of cover crane. (these tappings are expensive and difficult to have done locally)

g. Providing inset baskets of a design that will permit free flow of steam necessary for adequate heat penetration of products processed. Slatted wire inset baskets are more suitable than metal baskets with perforations unless 1" perforations are provided on a 1½" surface or the equivalent.

h. Constructing retorts so that rim is at least of ¼" thickness to avoid undue wear on the gasket.

i. Placing gaskets in retort cover rather than on rim of retort shell for more satisfactory wear of gasket.

5. Time and Temperature Processes:

It was proposed that the time and temperature processes used by commercial canners as set up in Bulletin 26-L, "Processes for Non-acid Canned Foods in Metal Containers," (See item 1, p. 13) be adopted for non-acid foods canned in community canneries. An additional safety margin of 5 minutes for all products was suggested to allow for variations that would occur in a community cannery.

6. Spoilage:

Some of the important points stressed to keep spoilage of food canned in community canneries to a minimum include:

a. Can only good-quality products.

b. Have time between harvesting and canning as short as possible.

c. Use clean hampers and containers for transporting produce.

d. Sort and cleanse produce thoroughly.

e. Keep scrupulously clean all equipment and utensils with which food comes in contact.

f. Avoid the use of wooden containers or utensils with which food must come in contact.

g. Keep to a minimum the time necessary for completing the job after the heat treatment is applied; that is, once the product is blanched, no time should be lost in completing the job. Any delay necessary in the steps of canning should occur before any heat treatment is applied.

h. Use a thermometer at frequent intervals to test the center temperature of the can at time of sealing.

i. Process canned food as soon as possible after sealing. Processing time and temperatures will be inadequate if sealed product is allowed to cool below the "initial temperature."

j. Maintain sealer in perfect working order at all times. Test can seam daily or oftener, depending on machine used, by the "file method of testing." The wire test is not adequate to insure the perfect seam.

k. Make sure retorts are thoroughly vented before counting time for processing.

l. Make sure temperature and pressure do not fluctuate during processing period.

m. Cool canned products promptly to 100° F.

n. Complete cooling and remove products from cannery.

o. Have patrons store products at temperature not to exceed 70° F.

Community canneries, it was pointed out, have a real responsibility in supervising the processing of patrons' foods and should be duly concerned over losses from spoilage. Commercial canners make a leakage

allowance of 2 cans per thousand or 2/10 of 1 percent of the total pack.

It was suggested that colleges and universities and other institutions and businesses offering research service should give more consideration to causes of spoilage. Spoilage clinics may be an effective means of pointing up the need in each respective State.

7. Containers for Canning:

The use of tin containers in community canning centers is recommended. The use of glass jars in community canneries should be confined to water bath processing of acid foods. The use of glass jars reduces the production capacity of any center by about one-third. The breakage and safety problems involved are not conducive to the extensive use of glass in canning centers. When glass jars are used some effort should be made to instruct patrons on size and type of jars most suitable for acid products. The use of 1/2-gallon jars for other than brining and salting of vegetables and pickles should be discouraged.

HIGH LIGHTS AND ANNOUNCEMENTS

E. O. Pollock, Regional Director of the Office of Distribution, War Food Administration, 5 South Wabash Avenue, Chicago, Ill., presided on the opening day.

Paul W. Chapman, Dean of the College of Agriculture at the University of Georgia, Athens, Ga., delivered the keynote address on the opening day of the conference. His inspirational message on community canning in Georgia served to point up the importance of community centers in providing a means by which members of communities could preserve the foods needed for achieving better nutritional standards. He cited the National Conference as the first Nation-wide official recognition of the merits of the community canning program and pointed it up as a milestone in the field of food preservation and as a step in the right direction for providing the trained leadership necessary for its sound development. (Address attached)

Marcus J. Gordon of the Civilian Food Requirements Branch, office Of Distribution, War Food Administration, who addressed the conference group on the opening day, outlined the scope of activities of the Branch. He stated that the Branch is interested in stimulating the development of community food preservation centers as one means of effecting conservation and better use of fresh fruits and vegetables. He particularly stressed the importance of establishing centers in connection with farmers' markets, at shipping points and other areas where local abundances occur and stated that such centers can serve as outlets for produce purchased by the Office of Distribution through its market support programs. Produce so purchased and processed is made available to schools for their lunch programs. He mentioned that a survey of community canneries was being made to determine the location of those centers having facilities to process food so purchased. (Address attached.)

Dr. Fred W. Tanner, Bacteriologist of the University of Illinois, addressed the conference group on proper methods of processing. He emphasized the seriousness of not observing the findings of research in safe methods of processing. He referred particularly to the recognition given in many publications to processing non-acid foods by the water bath method providing certain precautions are observed. He stated that even though precautions are emphasized, the fact that the method is mentioned is considered an endorsement of it and any food poisoning that may occur as a result of the use of the water bath method in processing non-acid food is chargeable to the persons preparing the instructions. (Address taken from paper attached.)

Equipment Display: Various manufacturers of canning equipment and supplies provided items for exhibit and demonstration. Such items included retorts, (both steam and gas-fired) pressure canners, pressure cookers, gages, sealers (hand and motor-driven), tin cans, jars, jar closures, and food mill.

A preliminary draft of the publication on community food preservation centers, now being prepared under the direction of the Civilian Food Requirements Branch of the Office of Distribution, WFA, was released to conference members for review and comment. It was stated that the bulletin would be available for release as soon as certain revisions have been made. Copies of the revised bulletin will be mailed to all conference members.

An announcement was made that the Regional Directors of the Office of Distribution have added to their staffs food preservation specialists who, in addition to arranging for the processing of surpluses in community centers and assisting all agencies and groups in conducting workshop training conferences at regional and State levels, are available to assist in an advisory capacity, in planning State programs, and in setting up and operating community canneries. Requests for the services of regional food preservation specialists should be made to the appropriate regional director. The names of the directors and the States which they serve are:

Southern Region	States	
James H. Palmer	Alabama	Mississippi
Regional Director	Florida	North Carolina
Office of Distribution	Georgia	South Carolina
War Food Administration	Kentucky	Tennessee
Western Union Building		Virginia
Corner Marietta and Forsyth Streets		
Atlanta 3, Ga.		

Midwest Region	States	
E. O. Pollock Regional Director Office of Distribution War Food Administration Room 1714, 5 South Wabash Avenue Chicago 3, Ill.	Illinois Indiana Iowa Michigan Minnesota	Missouri Nebraska North Dakota Ohio South Dakota Wisconsin

Southwest Region	States	
Lester J. Cappleman Regional Director Office of Distribution War Food Administration 425 Wilson Building Dallas 1, Tex.	Arkansas Colorado Kansas Louisiana	New Mexico Oklahoma Texas

Western Region	States	
Buell F. Maben Regional Director Office of Distribution War Food Administration 821 Market Street San Francisco 3, Calif.	Arizona California Idaho Nevada Montana	Oregon Utah Washington Wyoming Territory of Hawaii

Northeast Region	States	
Francis D. Cronin Regional Director Office of Distribution War Food Administration 150 Broadway New York 7, New York	New York Connecticut Delaware District of Columbia Maine Maryland	Vermont Massachusetts New Hampshire New Jersey Pennsylvania Rhode Island West Virginia

Reference material cited as some of the good sources of information for supervisors of Community Food Preservation Programs included:

1. "Processes for Non-Acid Canned Foods in Metal Containers" with Addendum, Bulletin 26-L, National Canners' Association, Research Laboratory, Washington, D. C., May 1942

2. War Department Technical Manual 10-407, a handbook on cutting beef, prepared for the U. S. Army by the National Livestock and Meat Board, available through the Superintendent of Documents, Government Printing Office, Washington, D. C. 20¢

3. A.S.M.E. Suggested Rules for Care of Power Boilers 1943, The American Society of Mechanical Engineers, 29 West 39th St. New York, N. Y. $1.00

4. "Spoilage in Canned Foods and its Preventage," a pamphlet issued by the State of California, Department of Public Health, Bureau of Food, Drug and Cannery Inspections, 703 California State Building, Los Angeles, Calif.

5. "The Role of Micro-organisms in Canning" - Paper presented by C. T. Townsend, National Canners' Association, Western Branch Laboratory and Laboratory for Research in the Canning Industries, University of California, Berkeley, Calif.

6. Bulletin No. 635, "Safe Processes for Home Canned Meats," Agricultural and Mechanical College, College Station, Tex.

7. "By-Monthly Bulletin for July 1943," Agricultural Experiment Station, Fargo, N. Dak. (includes information on meat canning experiments)

8. "The Canned Food Reference Manual," a Publication of the American Can Company Research Department, 230 Park Avenue, New York, N. Y.

9. "Appertizing; or The Art of Canning;" its history and development, by Arvill Wayne Bitting. The Trade Press Room, San Francisco, Calif.

10. "Bacteriology," a textbook of micro-organisms, 1937 (revised edition soon to be available) by Fred Wilbur Tanner. Twin City Printing Co., Champaign, Ill.

The Report of Conference Committees adopted by the Conference on Home Food Preservation, sponsored by the Extension Service at Chicago, Ill., January 13-15, 1944, was reviewed and endorsed.

Dr. Henrietta K. Burton, Supervisor Home Extension work, U. S. Indian Service stated that the agency operates a number of food preservation centers on Indian Reservations in many States. She indicated their desire to be informed of community food preservation training programs, and of publications and technical material that may be available for distribution.

E. H. Reed of the War Relocation Authority of Washington, D. C. attended the conference in the interest of the development of canning centers in War Relocation camps.

Types of Community Food Preservation Centers Described By Workshop Members

Earl Wingo, Division of Food Preservation, Georgia Department of Agriculture, Atlanta, Ga., told of the large steam plant set up adjacent to the farmers' market in the suburbs of that city. Patrons of the cannery bring in home-grown produce or purchase produce at the market. Waste of fruits and vegetables at the market has been reduced considerably since the establishment of the cannery. Further plans for the prevention of waste are now being developed whereby outer leaves and left-over produce will be dehydrated for use as chicken and stock feed.

The center sponsored by the State Department of Agriculture in Georgia is to be supplemented by other centers established at strategic market areas in the State.

Dr. Kathryn E. Briwa, Foods Specialist, Extension Service of Maine, told of the State-wide food preservation program which was started in that State in 1942, with funds provided by the Governor's Emergency Fund. Since that time many agencies have become interested in the development of the program, the Office of Civilian Defense, Vocational Education, and Extension, and Extension Service taking the lead with the University of Maine giving training for supervisors of canning units. In addition to providing facilities for families to preserve their food supply, the program has three objectives, namely, to provide food for disaster, for school lunches, and for institution and welfare needs. Patrons of the centers leave for these purposes a toll of from one-fifth to one-third of the produce canned, depending upon whether containers were brought by the patrons or furnished by the cannery. Most of the centers operated in Maine use small equipment and have an average capacity of from 200 to 600 cans a day.

Myrtle Davidson, Assistant Director for Home Economics, Extension Service of Utah, described the interesting plan on which the church of the Latter-day Saints operated its community food preservation program. Many centers operating large equipment provide facilities for freezing produce and grinding flour as well as for canning fruits, vegetables, meats, and milk. Although the centers were originally established to preserve surplus foods for the use of low-income families and to encourage a self-help program as opposed to dependence upon direct relief, they are now open to any person in the community who has food to preserve. Persons who have no produce to can may work in the centers and receive canned goods as payment for their service. The exchange of canned produce between areas is encouraged by the church, thus providing a wider variety of food. All canning in Utah canneries is done in tin cans.

H. N. Hansucker, Assistant State Supervisor of Vocational Agriculture in West Virginia, discussed the Office of Education Food Production War Training Course 15 plan for the operation of community canning centers in that State. The developments pointed up by Mr. Hansucker are typical of the Food Production War Training program sponsored throughout the country. He emphasized the importance of having an advisory council for sound community planning and the necessity for keeping the direction of the development of the program in the hands of community members. The point was made that by having representative personnel of the community such as a county superintendent of schools, each high school principal, county Extension agent, Farm Security supervisor, businessman, and newspaper publisher on such a committee the community as a whole soon learns to look to the center for assistance in conserving their food supply. He further stated that he felt these centers were here to stay and were not merely a wartime emergency set-up. The food preservation program is but one of many public service programs sponsored through schools.

Pearl Laffitte, County Home Demonstration Agent, Duval County, Florida, told of the developments of the food preservation program in her county.

The Board of County Commissioners, in cooperation with the Defense Council, sponsors the community food preservation centers and provides the building, equipment and supervision. The Extension Service provides the technical assistance necessary to set up and operate the centers. A definite attempt has been made to encourage people to can on a budget plan, to avoid overstocking the family cellars, and to encourage planning of the wide variety of canned products necessary for a well-balanced diet. Supervisors of such units are, in most, instances, members of Home Demonstration Clubs who have received their training through the Extension Service.

Cecil D. Bilbrey, State Supervisor of Community Canning, Extension Service, Illinois, described how agencies interested in community food preservation cooperated in that State, citing that the Office of Distribution lent equipment to the Office of Education Food Production War Training Centers and other centers and that the Extension Service provided technical assistance. He also pointed up the importance of the community survey in determining the size of the center to meet the needs of the community, emphasizing the fact that centers set up without such determination may be either too small to meet the demand of the community or too large to justify full-time operation. In either case, a great waste of food or materials may result. Another point of interest was his statement on the need for a State planning committee to survey the food preservation needs throughout the State and a coordinator to direct the development of the program.

C. T. Townsend, Head of the Research Department of the University of California, San Francisco, told of the control set up in California whereby community canneries were subject to the same regulations as commercial canneries. All canning must be in conformity with regulations of the State Board of Health and all food must be inspected and accepted before it can be distributed to school lunch projects and to public institutions. The University, working in close collaboration with the committee on community food preservation, directs training given to supervisors. Certificates of qualification for assuming charge of community canning centers are issued to all persons completing this course of training.

Wesley P. S mith, Bureau of Agricultural Education, California Polytechnic School, San Luis Obispo, Coordinator of the State planning Committee on Community Food Preservation programs, gave a brief review of the plans for the development of 75 centers to be set up under the Vocational Education program in California.

Hoyt Turner, Head of the Department of Food Processing in the University of Georgia, at Athens, outlined the training program provided at that University for setting up and operating community food preservation programs. A typical food preservation center near the campus provides facilities for canning, freezing, and dehydrating, and plans are under way to establish a meat cooling and cutting unit. A resident staff is maintained at the University to give this training, and a full time boiler operator and supervisor are provided at the center. Training is given to senior students and to supervisors from various communities requesting

such training. Scheduled courses for students are given throughout the school year and short courses for plant supervisors before the beginning of spring canning and before the meat canning season. Food is canned for the University dining halls and members of the University faculty use the facilities of the plant to can produce for their own use.

Dr. J. B. Francioni, Head of the Animal Industry Department of the University of Louisiana, briefly outlined plans that the University has made to establish a 4-year course in food preservation with special emphasis on canning and freezing. Slaughtering facilities are to be provided and training given in slaughtering, cooling, aging, dressing, and canning of meats. Blueprints have been developed for a model community plant to be established on the campus. Dr. Francioni told of Louisiana's program to coordinate the activities of all the agencies and groups concerned with community food preservation. One hundred twenty-one community centers have been completed or are under construction at this time, under the Vocational Agriculture Program. The centers have an average daily capacity of 1,500 to 3,000 cans.

Universities and colleges represented at the conference in addition to those mentioned included the Pennsylvania State College, State College, Pa., and the University of Tennessee at Knoxville, Tenn. Both schools are planning to establish community food preservation training centers on their campuses and are taking an active part in directing the development of the program in their respective States.

Reports Of Agencies And Groups

The following reports prepared by the agencies and groups represented at the conference were presented to the conference group as information on how each agency might contribute to the development of the Community Food Preservation Program.

Office of Distribution: One of the major responsibilities of the Office of Distribution is to secure more efficient utilization of our civilian food supply. The Office of Distribution is therefore interested in encouraging and assisting further development of the community food preservation program for the following reasons:

> The program provides a means whereby conservation and utilization of our food supplies can be effected in areas where there is an abundance of fresh produce, particularly in connection with farmers' markets and shipping points and in urban areas where victory gardeners have grown produce in excess of their immediate needs.
>
> The program will provide outlets for commodities that may have to be purchased under Office of Distribution price-support programs. In the event of such purchases commodities purchased will be donated to canning centers provided the processed foods are furnished to schools and welfare recipients.

The Office of Distribution is interested in developing canning in connection with the school lunch program. (The Office of Distribution expects to spend approximately fifty million dollars to assist in making school lunches available during the current fiscal year.)

It is recognized that, with the steady development of home food preservation through the efforts of the Extension Service and the Office of Education and their participation and interest in the development of community food preservation, a tremendous increase has been made in the non-commercial canning of foods for civilian needs. The Office of Distribution will therefore coordinate its efforts with the efforts of these agencies in the further development of the program along the following lines:

(1) Maintain during the critical war period a technical food preservation staff at the Washington and regional levels to serve as consultants to agencies and groups requesting their services.

(2) Prepare technical material on the organization and operation of community food preservation centers to be distributed through our regional and State offices.

(3) Sponsor and assist with National and regional workshop training conferences.

(4) Act as claimant agency for all community food preservation centers other than those operated by educational or governmental institutions in securing through the War Production Board the necessary allocation of critical materials for the manufacture of equipment and process priority applications for such groups. Educational and governmental requirements for equipment are, by regulation of the War Production Board, handled by the WPB. The Office of Distribution will, however, assist in any way possible in connection with equipment requirements for such groups to the end that the total needs of equipment for the community food preservation program can be met.

(5) Regional food preservation specialists will work cooperatively with the State Supervisor of the Office of Distribution and all agencies and groups interested in community food preservation in effecting surveys of needs for community food preservation centers.

(6) Regional personnel will assist groups within a State requesting technical information on making floor plans, setting up equipment, and operatin community food preservation centers.

(7) Regional offices will assist State agencies and groups in conducting State and area training programs.

Extension Service: The members of the Conference representing the Cooperative Extension Service in Agriculture and Home Economics endorse the

report made at the National Food Preservation Conference by the Committee on Community Food Preservation Centers.

State and county Extension workers have actively participated in community food preservation centers in previous emergencies and are interested in their contribution to the War Food Program, to an adequate rural food supply, and to the reduction of labor in connection with family food preservation.

While realizing that details of co-operation between agencies are best worked out at State and unit levels, we suggest that in general State Extension Services can make the following contributions to the current program for establishing and operating community food preservation centers:

(1) Participate in a State planning conference.

(2) Help assemble information to guide in locating such centers.

(3) Help promote local understanding and participation.

(4) Participate in developing and presenting training courses or workshops for professional workers of the various agencies, and for plant supervisors, respectively, for the purpose of --

    (a) Bringing together their thinking.

    (b) Encouraging them to use standard operating procedures.

    (c) Preparing them to train and supervise others in such procedures.

(5) Serve as sources of technical information through --

    (a) Conferences or consultations.

    (b) Publications.

    (c) Informational releases.

(6) Help work out and carry on educational programs for plant patrons.

(7) Help correlate production and preservation resources and advise of local surpluses not regularly covered by other agencies.

(8) Relay to resident departments, experiment stations, and other agencies problems and requests for technical information arising in the field.

Vocational Education:

How to get training to the unit level:

    (1) Provide a training workshop as soon as feasible.

(2) Training should be in a school community food processing center.

(3) Those who will attend the regional workshop will be selected by regional agents. Instructors for these workshops will be those best fitted to do the job.

(4) Each State director will provide a plan for training people within each respective State for the training of State and local supervision and instructors who will operate community canning centers.

(5) It will be the policy of Vocational Education to utilize the services of any and all agencies qualified to participate in this type of program.

What will be included in the program for workshops:

(1) General problems of operating a plant will include the people who participate in the project, problems of safety and sanitation, and equipment needed.

(2) Techniques of canning acid and non-acid foods: fruits, vegetables, and meats.

(3) Teach people to use equipment.

(4) The actual canning of foods is recommended, participants thus learning to use the equipment and techniques of canning different types of food at the same time the equipment is being operated.

(5) Operation processes for boilers, sealers, and retorts should be taught prior to operation of piece of equipment. This can be summarized with the use of charts if necessary for slower people who will need further training on the use of each piece of equipment.

(6) Begin training programs where persons really need help. Check sheet might help to determine where greatest need is and what trainees need help with.

Administrative problems: Clear all administrative matters through State directors of Vocational Education.

The University Group: Recognizing the importance of training in the success of food preservation activities, it is the opinion of this committee that the university should:

(1) Provide basic training facilities for all phases of food preservation that will meet the needs of any school or other community groups.

(2) Provide the necessary key personnel and make possible the bringing together of various existing departments as well as other sources which may contribute information relative to food preservation.

(3) Provide the kind of information which will be recognized and accepted by all food preservation agencies.

(4) Provide courses of study as well as short courses for the present, the immediate post-war, and the long-time objective.

(5) Provide plans for initiating and conducting long-time research, as well as experimentation in food preservation which may be of both direct and indirect interest to home and community preservation centers, including best management and size of equipment, as well as basic food preservation practices.

Suggested State Plan

In the closing session of the conference discussions on how the training given could be carried to the local level, it was recognized that the whole Food Preservation Program rested primarily with the individual States and in turn, with the individual counties within the States. It was suggested that State agencies and groups interested in community food preservation centers should hold a State meeting to consider the following points:

1. Evaluation of what needs to be done. (Areas covered, areas not covered.)

2. State goals. Is any promotion necessary? Will the program be permanent or temporary?

3. State resources (money, equipment, and technical assistance.)

4. Division of responsibility between agencies and groups (State and county levels.)

5. Need for State food preservation committee (using existing committees whereever possible.)

6. Need for coordinator of State-wide program.

7. Need for training program and workshop conferences. Using the National Workshop Training Conference as a background the following suggestions were made for conducting a workshop conference:

   a. Hold conference in a typical community cannery.
   b. Limit personnel participating to 25 or 30 persons.
   c. A conference period for 5 to 6 days is adequate.

d. Wherever possible have cannery in operation the first day of conference to provide an opportunity for observation.
e. Provide an opportunity to operate equipment giving special emphasis to the retort and sealer.
f. Provide an opportunity for canning produce.
g. Limit Job Instruction Training course to 4 hours.

Conference members present expressed their feelings regarding their responsibility in taking back to their respective States the training and suggestions given and making an effort to initiate State planning. A number told of plans that were already under way in their States. The publication on community food preservation centers was recommended as a source of basic information in planning a training program and workshop conference.

In the discussion on who would initiate a State meeting it was generally agreed that the initiating group would vary in the several States, and would include such groups as the State Nutrition Committee or Sub-committees, Vocational Education, Extension Service, Office of Distribution, Civilian Defense, or others. The important thought was that someone take the initiative to see that a meeting is arranged and an over-all State plan set up to provide a maximum of service to all communities.